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### CSU Symposium on Higher Education

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## **TSSA Grants Report Format**

Renwu Zhang,  
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**Term/Year of Award:** Spring, 2018

**Name and Date of conference attended:**

The 20<sup>th</sup> CSU Symposium on University Teaching, Cal Poly Pomona, April 13-14, 2018

**Teaching Skill(s) Studied:**

The workshop I attended is “Flipping the Classroom”. In the workshop, I learned and practiced the flipping the classroom teaching method. A group of 5 members discussed the assigned topic and designed the best solving strategies to the project. In contrast to the traditional learning method in which students passively received the information, the “Flipping the Classroom” method makes students learn more actively, think more deeply and apply more comprehensively.

**Impact on Current Teaching (How was this info applied):**

I tried this method in one of my upper division class: Physical Chemistry. At the end of the quarter, I assigned some small topics for groups with 2-3 students to prepare, and then each group came to teach other students, in order to test how this teaching pedagogy works in Physical Chemistry class.

**Assessment/Evaluation:**

I had about 10 groups with 10 different topics. However, only 2-3 groups could give a good presentation. The rest groups either could not give a complete introduction or made some fundamental mistakes. I attributed this failure to the profoundness of Physical Chemistry, in which some materials such as quantum mechanics are even difficult for many professors to understand. Therefore, Flipping Class teaching method may be good for some courses that are information-based, however, for Physical Chemistry that is comprehension-based, the Flipping Class teaching method may not work well since it requires the instructor to understand the physics concepts profoundly and precisely. For undergraduate students with no many years of studying and researching experience, it was very difficult to gain the deep understanding by themselves.

**Date Submitted:** 01/28/2020